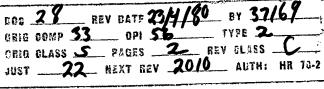
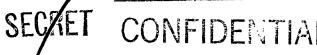
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## Office Memorandum · United States Government

то :	The Files DATE: 31	January 1958	
FROM:			25 <b>X</b> 1
subject:	Trip Report - Contract RD-76, T.O. F, with		25X1 25X1
<u></u>	of SPD/EAB, visited on 1958, to monitor progress under the subject contract. T ment status of the miniature data recorder was discussed meeting with the following company representatives:		25X1 25X1
			25X1
:	2. Prior to a general discussion of the project willisted above, brought into a meeting to discuss the Type E-100, Electro-Mechan resonator developed by This resonator was intended	ical 1000 cycle ed for use as	25X1 25X1
	the reference oscillator built into the miniature record sified copy of a report on the test and evaluation of the written by the R+D Laboratory was shown. This report pot the accuracy of the resonator did not meet the recorder which called for stability of plus or minus one part in there was no agreement that the production copies of thi	e resonator inted out that specification 50,000. Since	-
	have the desired accuracy, was asked about alt oscillator designs. He mentioned that he was considering controlled oscillator employing frequency division to obtain 1000 cycle tone. This is the same approach taken by which, as yet, has not proved temperature stable.	ernate g a crystal tain the	25X1 25X1 25X1
	was informed that we were seriously considering a relaxal specification to plus or minus one part in 10,000. This accordance with earlier discussions on the subject, and per memo SPM 8-514 dated 21 January 1958.	tion of the change was in	25X1





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	25X1		
3. The representatives are apparently devoting considerable time toward convincing themselves that pulse shape cannot be	25/1		
accurately retained on magnetic tape at the low tape speeds being used.  offered that since there were two data channels available, one might be used to record pulse width and the other to record pulse amplitude. He described a "Schmidt" trigger circuit that would supply constant amplitude pulses at the true pulse widths. He was informed			
that we were aware of this possibility and that we would incorporate this circuitry ahead of the recorder, if so desired.  contributed toward an understanding of the frequency response problem by explaining that although the bandwidth of the recording mechanism was limited to 10 kc, the amplifier bandwidth should, and will represent the state of the art of transistory circuitry, since any limitation to pulse shape occurring in the amplifier would contribute to play-back distortion. He also noted a phenomenon working in our favor which suggests that although our recorder will be limited to 10 kc sinusoidal response, experience shows that square waves are actually reproduced containing higher harmonic detail than would seem mathematically possible.	25X1		
4. In view of the rapidly approaching completion date for the engineering model (28 June 1958), the writer asked if the contractor had a scheduled outline for completion of the various phases of the development. Since there was none on paper, the writer suggested			
that such an outline might guide the sub-contractor, the several people working on different sub-assemblies at and the writer in making decisions on acceptability of a given design or circuit.  will prepare such an outline and forward a copy to all interested	25X1 25X1		
individuals. were asked to write more comprehensive reports on this and the project. mentioned that there seemed to be a change in our attitude toward	25X1 25X1		
these tasks but agreed that both the scheduling and the more detailed reports were healthy suggestions.	25 <b>X</b> 1		
5. The writer examined an engineering model of a tape cartridge and transport built for the project which reflected good design and workmanship. The final tape cartridge configuration will not be settled until investigation of a third system has been completed. Parts are being fabricated for an experimental tape cartridge which will eliminate the need for reels as the inside surfaces of the cartridge will guide the tape.	,		
	25X1		

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